

EXPERIMENT – 3

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Batch: T11

Roll No: 20

AIM: To Perform various GIT operations on local and Remote repositories using GIT Cheat Sheet

THEORY:

Git is a distributed version control system (DVCS) that helps developers track and manage changes to their codebase over time. Git allows you to record the history of your code, revert to previous versions, and collaborate with other developers. Git is designed to handle everything from small to very large projects with speed and efficiency. It allows you to record the history of your code, revert to previous versions, and collaborate with other developers. Some of the basic git operations are: Initialize, Add, Commit, Pull, and Push.

- **Initialize:** Creates a new, empty Git repository in the specified directory.
- **Add:** Stages changes in the working directory to be included in the next commit.
- **Commit:** Saves the staged changes along with a descriptive message, creating a new point in the project's history.
- **Pull:** Fetches and integrates changes from a remote repository to the local repository.
- **Push:** Sends committed changes from the local repository to a remote repository.

OUTPUT:

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git push origin master
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 24 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 438 bytes | 438.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/AnshChughria49/SEPM_ANSH_20.git
 * [new branch]      master -> master
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git log
commit f46b28f6f1b6dc9d283e94c14a77859cebe321f1 (HEAD -> master, origin/master)
Author: AnshChughria49 <anshchughria@gmail.com>
Date:   Thu Jan 30 13:34:21 2025 +0530

    first commit
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git commit -m "first commit"
[master (root-commit) f46b28f] first commit
 1 file changed, 14 insertions(+)
 create mode 100644 index.html

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git config --local user.email "anshchughria@gmail.com"

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git config --local user.name "AnshChughria49"
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ ls -a
./ ../ .git/

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git status
On branch master
nothing to commit, working tree clean
```

```
MINGW64~/c:/Users/HP 15L/Documents/T11_20/SEPM/SEPM_ANSH_20

HP 15L@805-26 MINGW64 ~/Documents/T11_20
$ cd SEPM

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM
$ cd SEPM_ANSH_20/

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20
$ git init
Initialized empty Git repository in C:/Users/HP 15L/Documents/T11_20/SEPM/SEPM_A
NSH_20/.git/

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ |
```

```
HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    images/

nothing added to commit but untracked files present (use "git add" to track)

HP 15L@805-26 MINGW64 ~/Documents/T11_20/SEPM/SEPM_ANSH_20 (master)
$ |
```

CONCLUSION: Thus, we have successfully studied and performed various GIT operations on local and Remote repositories using GIT Cheat-Sheet.